INTRODUCTION

This section of the report is intended to provide Management with an executive-level summary of the most noteworthy performance information to date. All information is as of the end of October 2002, unless otherwise noted.

Included in this section are descriptions of significant accomplishments considered to have made the greatest contribution toward safe, timely, and cost-effective clean up, an overall fiscal year-to-date summary analysis addressing cost, schedule, and milestone performance, a contract-to-date performance table, overviews of safety, breakthroughs, opportunities for improvement (that represent potential significant improvements over the established baseline), critical issues that identify the high-level challenges to achieving cleanup progress, EM Corporate Performance Measures and a forward-looking synopsis of Upcoming Planned Key Events.

SIGNIFICANT ACCOMPLISHMENTS

Spent Nuclear Fuel (SNF) Production Improvements — The SNF project continues to realize substantial productivity improvement as a result of steps taken to improve equipment reliability, processing times and process management. These improvements are demonstrated by the project going from an average of 5.6 MCOs per month from January through May 2002, to an average of 13.8 MCOs per month from June through October 2002.

Spent Nuclear Fuel Movement Activities — During this reporting period, the project shipped 19 Multi-Canister Overpacks (MCOs) containing 91.3 Metric Tons of Heavy Metal (MTHM) from K West (KW) to the Cold Vacuum Drying Facility (CVDF). Cumulatively, a total of 138 MCOs containing 716.24 MTHM have been shipped, which is slightly behind the recovery plan.

Plutonium Finishing Plant (PFP) Metals, Alloys, Oxides and Polycubes — During October 94 bagless transfer containers (BTCs) were completed in 234-5Z and 2736-ZB processing areas. A cumulative total of 872 BTCs have been made in the 234-5Z and 2736-ZB facilities as of the end of October. Stabilization of Pu Oxide material, which began in early August, has resulted in the processing of 399 items through October 31.

PFP Residues — During the reporting period, 367,106 grams of Sand, Slag and Crucible (SS&C) were packaged into 54 Pipe Overpack Containers (POCs). Processing of SS&C is exceeding the baseline schedule.

Groundwater Wells — Two CY 2002 Resource Conservation and Recovery Act (RCRA) wells were drilled and constructed, and 55 Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Interim Action Monitoring wells were sampled.

PERFORMANCE DATA AND ANALYSIS

The following provides a brief synopsis of overall PHMC Environmental Management (EM) funds management and milestone performance. Schedule and cost performance is not available for October.

FUNDS MANAGEMENT

FUNDS VS. ACTUAL COSTS ($000)

This chart reflects the FH Project structure. This breakout is necessary to provide FH project managers with information specific to their areas of responsibility and accountability and to facilitate effective management of the funds within their control (obligated to the PHMC).

Project	PBS	Total Funding	October Actual Cost	Project Completion	Post 2006	Other
Spent Nuclear Fuel	RS03	$11,650	$15,580	($3,930)		
Plutonium Finishing Plant	CP03	$19,233	$7,008	$12,225		
	CP03	$64	$0			$64
	Subtotal NMS	$19,297	$7,008	$12,225		$64
Central Plateau Remediation	RC06	$6,752	$2,236	$4,516		
	RC02	$0	0		$0	
	RC01	$630	$209		$421	
	CP01	$8,738	$2,536		$6,202	
	RS01	$13	$0		$13	
	SS03	$2,554	$377		$2,176	
	SS04	$1,335	$586		$749	
	Subtotal CP	$20,022	$5,945	$4,516	$9,561	
Waste Management	CP02	$17,011	$6,704	$10,307		
	RC02	$143	$0		$143	
	RC05	$80	$0		$80	
	Subtotal WMP	$17,234	$6,704	$10,307	$223	
Advanced Reactor	RC03	$1,261	$93			$1,168
Landlord & Site Services	SS02	$15,853	$6,234	$9,619		
HAMMER	SS05	$291	$0		$291	
Site Systems & Analysis	SS01	$5,471	$1,935		$3,535	
Near Term Stewardship	SC01	$941	$68		$873	
TOTAL EXPENSE		**$92,019**	**$43,566**	**$32,738**	**$14,483**	**$1,232**

Operating costs for HAMMER were moved to SS01 per RL direction. GPP funds for HAMMER (EVOC) to be moved to SS01 once Funds recast is completed by RL.

MILESTONE PERFORMANCE

Milestones represent significant events in project execution. They are established to provide high level visibility to critical deliverables and specific status on the accomplishment of these key events. Because of the relative importance of milestones, the ability to track and assess milestone performance provides an effective tool for managing the PHMC EM cleanup mission. These milestones are consistent with the FH contract.

FY milestone performance (Enforceable Agreement [EA], U.S. Department of Energy-Headquarters [DOE-HQ], and RL) shows that one milestone was completed on or ahead of schedule and two milestones are overdue.

FY 2003 milestone performance information is depicted graphically on the following page. For additional details related to the data, prior year milestones, and outyear milestones, refer to the relevant project section titled "Milestone Achievement."

FY 2003 milestone information is based upon the September 30, 2002 baseline as updated for RL approved changes. Changes in both the number and type of milestones from month to month are the result of Baseline Change Requests (BCRs) approved during the year.

TOTAL ALL HANFORD PROJECTS

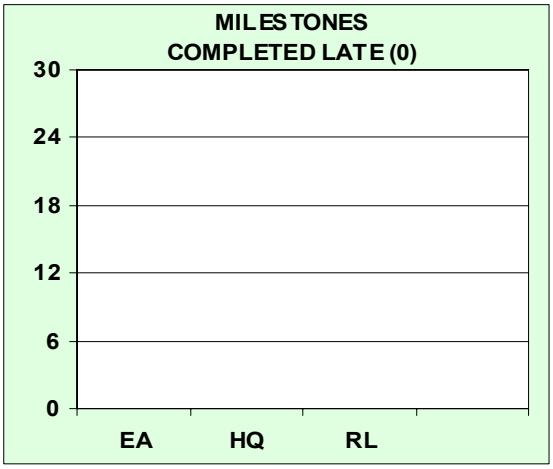
MILESTONE ACHIEVEMENT

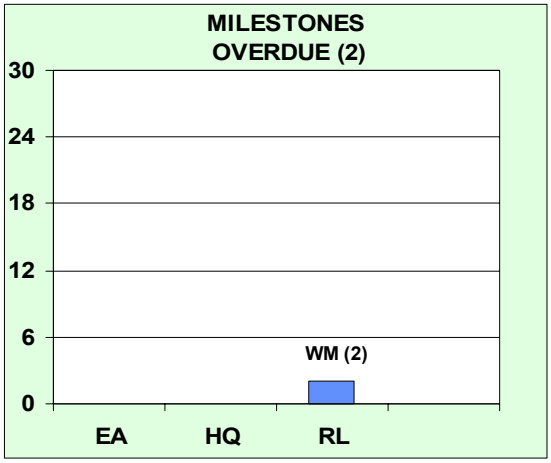
FH Contract Milestones

MILESTONE TYPE	FISCAL YEAR-TO-DATE				REMAINING SCHEDULED			Total FY 2003
	Completed Early	Completed On Schedule	Completed Late	Overdue	Forecast Early	Forecast On Schedule	Forecast Late	
Enforceable Agreement	1	0	0	0	0	12	3	16
DOE-HQ	0	0	0	0	0	0	0	0
RL	0	0	0	2	3	1	0	6
Total Project	1	0	0	2	3	13	3	22

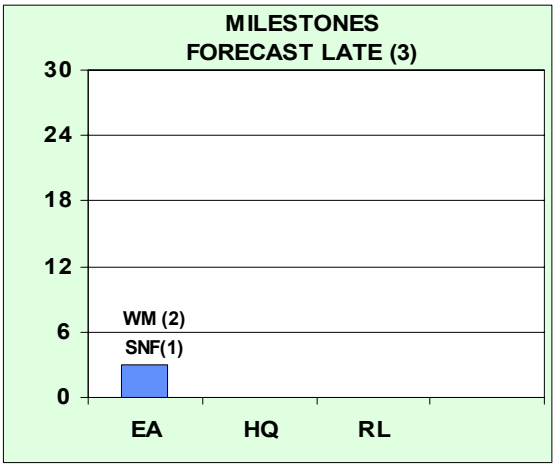
MILESTONE EXCEPTIONS

FISCAL YEAR TO DATE





REMAINING SCHEDULED



SAFETY OVERVIEW

The focus of this section is to document trends in occurrences. Improvements in these rates are due to the efforts of the PHMC workforce as they implement the Integrated ES&H Management System (ISMS), work towards achieving Voluntary Protection Program (VPP) "star" status, and accomplish work through Enhanced Work Planning (EWP). Safety and health statistical data is presented in this section. The safety charts are reported according to OSHA standards.

Significant Safety and Health Events

PHMC Level

Occupational Safety & Health Administration (OSHA) Recordable Case Rate: The FH Team OSHA Recordable Rate moved downward in October, below the baseline average of 1.5 cases per 200,000 hours. This is a positive sign, after two months of an increasing Recordable Rate. Increased focus on workplace safety and project safety improvement plans is yielding positive results.

Days Away From Work (DAFW) Case Rate: The current safe work hour count for the FH Team is 4.2 million hours. The initial recording of a Waste Management DAFW case in September was reclassified following a medical investigation. A SNF restricted case from June 2002 has required surgery and incurred lost time, so that case is now a DAFW case. The safe hours count has been adjusted accordingly for the FH Team and the SNF Project.

DOE Safety Cost Index: The current baseline was adjusted due to growth in the number of days on cases within the baseline. The current baseline is 4.7 cents per hour, still less than the DOE CY 2001 rate of 9.7. FH has referred several cases for medical evaluation due to lengthy restricted work time. The low Safety Cost Index for FH is the result of the overall low severity of the injuries being experienced on the projects.

Subproject Level

The **Plutonium Finishing Plant (PFP)** subproject has accumulated 971,000 safe hours. The DOE Safety Cost Index is stable at the current baseline of 8.3 cents per hour, slightly above the 8.0 goal.

The **300 Area Facility Transition** (WBS 3.1.6) subproject (formerly called the River Corridor Project) has exceeded 750,000 safe work hours. The OSHA Recordable Case Rate remains stable at the current baseline average of 1.9 cases per 200,000 hours worked; however, there was a case in October, ending a run of five months without a recordable injury. The DOE Safety Cost Index is stable at a good value; 3.7 cents per hour.

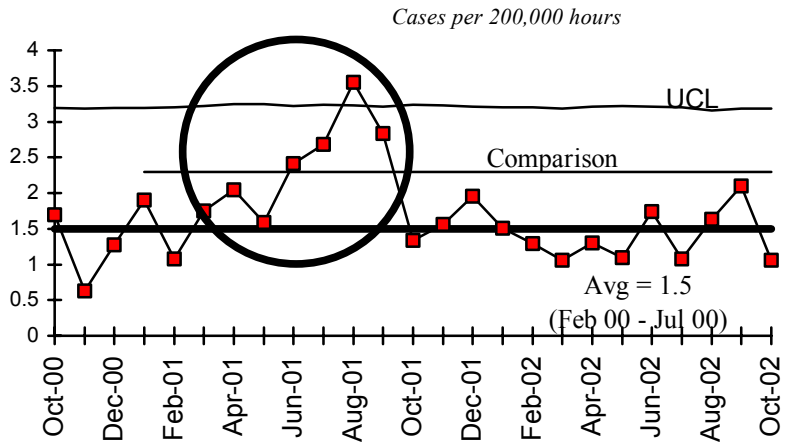
The **Spent Nuclear Fuel (SNF) Project** safe hours clock reset to June 16, 2002, (671,244) when a June case required surgery for a worker. The OSHA Recordable Case Rate and DOE Safety Cost Index have been rebaselined following recent increases. Management, safety and the employees of the SNF Project are working on an increased focus on workplace safety and improvement actions to address this significant adverse trend. October injuries may show early signs of this effort, as the project experienced only one recordable injury.

The **200 Area Materials and Waste Management** (WBS 3.3.2) subproject (formerly called the Waste Management Project) DAFW case noted last month on September 23, 2002 has been reclassified following an investigation. The safe hours clock has been reset to the original October 15, 1999 data and the safe hours total became 4,316,221. The DOE Safety Cost Index remains stable with the reclassification, as well.

Due to space constraints, FY 1996 through FY 1999 data is not portrayed on the following graphs.

Total OSHA Recordable Case Rate

Green



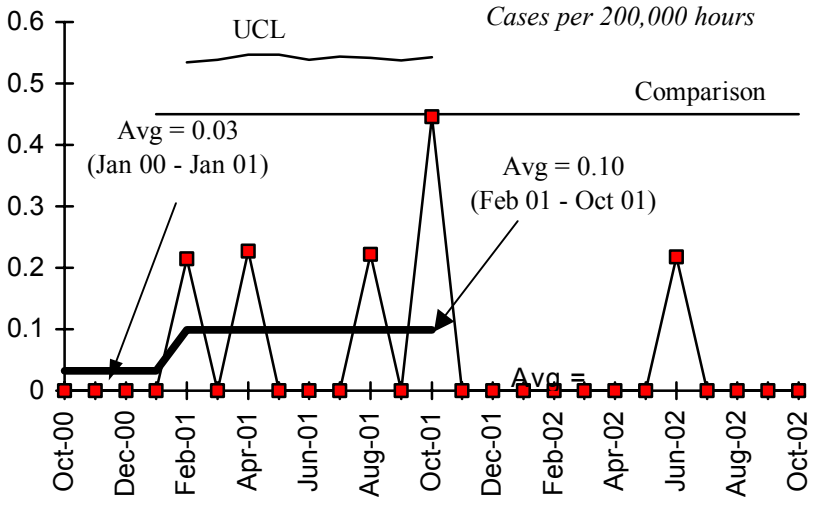
FY 2002 = 1.5
FY 2003 = 1.1
DOE Complex Comparison Average = 2.3 (CY01)

FH Projects were demonstrating a reduction of Recordable injuries through most of the Fiscal Year, but the months of August and September had an increase of 1-2 additional injuries per month, returning the FH Team rate to the baseline of 1.5. This stablization of the FH Team rate is the result of a significant increase in Recordable injuries on one project.

Management, safety and the employees of the SNF project are working on an increased focus of workplace safety and improvement actions to address this significant adverse trend. October injuries may show early signs of this effort, as the project experienced only one Recordable injury.

OSHA Days Away from Work Case Rate

Green

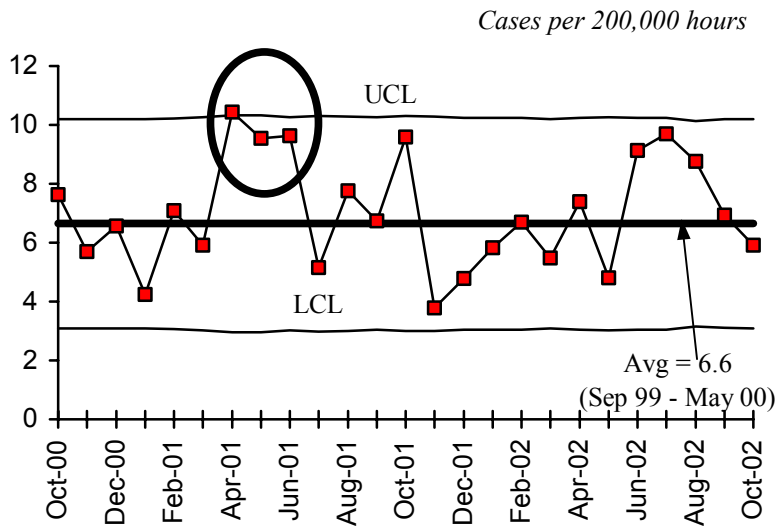


FY 2002 = 0.05
FY 2003 = 0.00
DOE Complex Comparison Average = 0.45 (CY01)

The initial recording of a DAFW case in September was been reclassified following a medical investigation. A SNF Project restricted case from June 2002 has required surgery and incurred lost time, so that case is now a DAFW case. The safe hours count has been adjusted accordingly for the FH Team and the SNF Project. The current Safe Work Hour Count for the FH Team is 4.2 Million.

First Aid Case Rate

Green

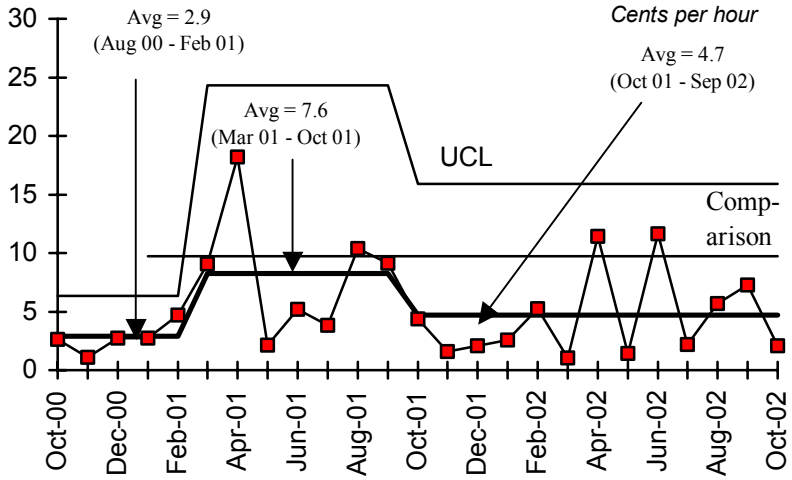


First Aid Rate undergoes seasonal cycles. Increases occur in warmer weather due to insect and animal encounters, and due to wind related minor injuries. Such an increase has occurred for June and July 2002. Hanford is especially susceptible to wind borne debris injuries due to the site wildfire in June 2000. The First Aid case rate has remained relatively predictable.

Fiscal year calculations are not included as DOE does not publish a comparison rate, and comparisons of partial fiscal year data to prior years would not be appropriate due to the routine cyclical trends in the data.

DOE Safety Cost Index

Green



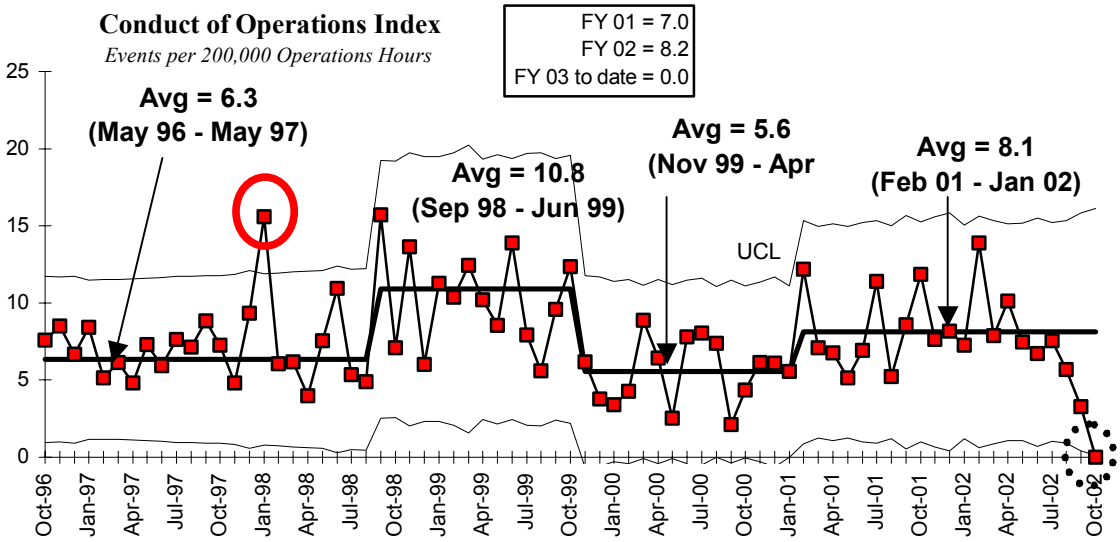
FY 2002 = 4.7
FY 2003 = 2.1
DOE Complex Comparison = 9.71
The current baseline was adjusted due to growth in the number of days on cases within the baseline. Current baseline is 4.7 cents per hour, still less than the DOE CY 2001 rate of 9.7. FH has reviewed past Restricted Work cases that are still incurring restricted time, and have referred several for medical reevaluation.

Current Calendar's Year data continue to be corrected as further days accumulate on any work restrictions or lost days. The rise in the safety cost index baseline was due primarily to one case in April 2002. Persistent case management of this case has resulted in a return to work in a non-restricted work status. Case management will continue to track and evaluate medical restrictions and the positive transition of cases back to full duty.

CONDUCT OF OPERATIONS

October 2002 has had no reports counted so far and is below the Lower Case Limit. It is promising that the past six months are below average, which could mean next month will complete a seven-month below average trend.

The current month tends to be artificially low as it can take up to 45 days to assign a root cause to an occurrence report and the majority of the event types in the index are root cause generated.



BREAKTHROUGHS / OPPORTUNITIES FOR IMPROVEMENT

Breakthroughs

Monolithic Removal of 327 Hot Cells — Intact removal of the 327 hot cells appears to be a technically feasible approach to accelerated 300 Area closure and to have potentially significant ALARA and schedule/cost benefits. Certification that the hot cells can be disposed of as non-Transuranic waste is key to adopting monolithic removal as the technical baseline. CP was successful in obtaining Accelerated Site Technology Deployment (ASTD) funding ($935K) to purchase in-situ characterization instruments that will lead to the eventual low-level waste certification. Data from the Neutron Detection Instrument Pod and Copper Foil Activation Analysis indicates that the residual TRU in both G and H cells is well below the limit for LLW/TRU determination. The ASTD commitment to deploy these instruments in two cells is complete and analysis reports are expected before the end of the fiscal year.

Nondestructive Examination (NDE) of Contamination in the KE Basin Walls and Floors — A significant activity necessary to deactivate the 100 Area KE Basin is to characterize the level of contamination in the basin's unsealed concrete walls and floor. This characterization data will be used as part of the technical basis to determine the methods to be applied in completing the deactivation of the basin, once the fuel and sludge have been removed.

The SNF Project will be using nondestructive (gamma scanning) techniques and detector systems, developed by the Pacific Northwest National Laboratory, to acquire data on the depth of radionuclide penetration in the basin's concrete walls and floors. This is the first time the NDE technique will be used to obtain characterization data with the facility in normal operation, with its full inventory of fuel, sludge and contaminated water. If successful, the data will be used, in conjunction with other information, to

determine which deactivation methods can realistically be used to remove/reduce the radiological dose/contamination, as well as to determine which basin areas are in the greatest need of mitigation. After initial deployment in the KE Basin, the wall detector system received basin water contamination, which must be resolved before data gathering can resume. Recovery efforts have been post-poned to December 2002, due to other KE Basin priority work.

Processing Improvement — Over 400 items of oxides originally thought to require thermal stabilization and packaging have been selected for discard as a result of investigations into their plutonium content. The database from which the original stabilization inventory was developed did not list net weights for these items. However, a more in-depth investigation revealed them to contain less than 30wt% Pu. DOE-HQ has approved the Safeguards Termination Limit (STL) letter for processing 1500 Kg bulk oxide/MOX through the Residues Project, awaiting RL transmittal of the approved STL.

Opportunities for Improvement

Fuel Transfer System — Bring the FTS on line and move to an operations production level of ten cask shipments per week.

Processing Improvement — The PFP Stabilization & Packaging Equipment (SPE) process qualification plan was submitted to RL. This plan will enable the SPE system, once qualified, to perform Loss on Ignition (LOI)/ Thermogravimetric Analysis (TGA) on a representative sampling of canned items rather than on all canned items. Representative sampling is significant since the processing throughput is limited more by the LOI/TGA measurement throughput than either furnace or canning capacity. Comments from the Third Party Review Team on the Process Qualification package were received in July. Final comment resolution on the Process Qualification package was completed in August and the document revised, support data collected and transmitted to RL for approval. The Process Qualification Application received DOE-HQ approval on October 30, 2002. Implementation of this program is expected by mid November following the scheduled material inventory. (This is the last report on this item).

Information Resource Management — Four pilots using Personal Data Assistant (PDA) / Hand Held Computing Device technology are underway to confirm the expected cost savings and production efficiencies. The four include 1) collection of field samples, 2) performing job risk analyses in the field, 3) automating monitoring and tracking of field maintenance, and 4) allowing hands-free and voice activated access to procedures for laboratory personnel performing experiments in glove-boxes.

ISSUES

SNF MCO number 63 fails integrity test — The disposition of MCO #63 was established as a top priority by the Requirements Improvement Team. The MCO was shipped to the CSB on October 8, 2002. This issue is now complete.

Processing oxide items via direct thermal stabilization is not feasible — Oxide items with high levels of chloride salts are currently identified in the baseline as being process via direct thermal stabilization. Recent testing by PNNL indicates that the approach isn't feasible. A follow-up study recommended washing the chloride salts in the existing solutions precipitation equipment to remove the salts. Laboratory testing of high chloride oxides continues and alternate washing methods are being explored. Review comments on the design criteria document are being dispositioned. See Section I for details.

EM Corporate Performance Measures

This information is provided quarterly.

EM Life Cycle Performance Measures

This information is provided quarterly.

Upcoming Planned Key Events

The following key events are extracted from the authorized baseline and are currently expected to be accomplished during the next several months. Most are Enforceable Agreement (EA), DNFSB or DOE-HQ Milestones.

300 Area Remediation

Spent Nuclear Fuel (SNF) — Complete transfer of the sixth NAC-1 cask containing boiling water reactor (BWR) spent nuclear fuel and transfer of SNF pins and pieces by November 20, 2002.

Contract Transition — Support transfer of FH scope to River Corridor Closure Contract (RCCC). Received a modification that changed the date from July 1, 2002, to "at direction of the Contracting Officer." FH is ready to initiate transition upon direction from RL.

Spent Nuclear Fuel

Sludge Water System (SWS) — Receive first Sludge Transportation System (STS) November 5, 2002.

Fuel Transfer System (FTS) — Begin DOE ORR by November 6, 2002.

FTS — Begin KE to KW fuel transfer by November 30, 2002 (M-34-17).

SWS — Install all basin systems, which includes mechanical, electrical, crane, and Closed Circuit Television (CCTV) in December 2002.

MCO Welding — Begin welding of MCOs at CSB in February 2003.

Fuel Retrieval System (FRS) — Complete construction activities for KW Basins SNF scrap removal system in February 2003.

200 Area Remediation

Equipment Disposition Project — Ship the Ion exchange columns by November 2002.

Waste Sites — Submit 1 200 NPL RI/FS Work Plan for the 200-IS-1 tanks/liners/pits/diversion boxes Operable Unit by December 31, 2002.

200 Area Shutdown Facilities — Complete installation of new roofs on PUREX & B Plant by November 30, 2002.

200 Area Materials & Waste Management

Accelerate Readiness to Receive SNF K Basin Sludge — 1) Complete movement of Shippingport (PA) fuel, 2) Support activities to receive and store K Basin sludge, and 3) Accelerate T Plant Canyon cell cleanout.

MLLW Treatment — Continue shipping waste to ATG under the FY 2003 option. Waste will consist of debris and radioactive lead solids. Establish a contract with Perma-Fix to perform the thermal desorption technology demonstration. Begin shipping waste that requires thermal treatment to Perma-Fix for the demonstration.

TRU Waste Shipments — The next shipment of TRU waste to WIPP is scheduled for November 21, 2002.

TRU Waste Retrieval — Continue preparations for the TRU Retrieval mockup. Plan to backfill and excavate to demonstrate excavation techniques. The contractor is working on the revisions to the Documented Safety Analysis (DSA).

Plutonium Finishing Plant Support — Continue to support residues processing with shipment of the new Sand, Slag and Crucible waste stream through FY 2003.

300 Area Cleanup Support — Complete support to the 324 Fuels Removal Project and continue support to 327 facilities. Complete shipment and receipt of the final IXC box from the equipment disposition project.

Waste Encapsulation and Storage Facility (WESF) Operations — Complete annual inner capsule movement test. Replace the Continuous Air Monitor (CAM) vacuum pump. Complete K-3 duct modification.

Liquid Waste Processing — Continue wastewater processing through the 200 Area ETF, the 300 Area TEDF, and complete the first 242-A Evaporator campaign in FY 2003.

Plutonium Finishing Plant

Nothing significant to report.